

ABSTRACT

Log-based hardware recovery. A checkpointed state of a system includes both architectural register values and memory. The checkpoint consists of a copy of the architectural register file values at the time the checkpoint is generated. An ordered log of non-deterministic events is maintained so that the responses can be repeated to simulate a complete checkpoint for error recovery purposes. When a processor detects an error, the processor reloads the state from the last checkpoint and repeats the non-deterministic events from the log.